

**REMARKS**

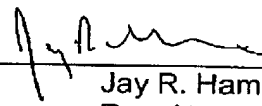
Applicant has responded to examiners arguments and rejections with regard to claim language by canceling claims 25-26 and submitting claims 27-28 to meet the requirements of the requirements of 35 U.S.C. 112, 2<sup>nd</sup> paragraph.

Applicant submits that the application as now presented is believed in condition for allowance and action to that request is respectfully requested. Applicant requests that the examiner continue examination of the patent application and if applicable provide applicant with an examiner's amendment.

Respectfully submitted,

MARION CALMER,

Date: July 6, 2004

By   
Jay R. Hamilton  
Reg. No. 50,644

Law Office of Jay R. Hamilton, PLC  
Registered U.S. Patent Attorney  
4300 E. 53<sup>rd</sup> St. Suite 103  
Davenport, IA 52807  
Tel (563) 441-0207  
Fax (563) 441-0175

**NEW ABSTRACT**

The corn harvesting unit and the attachment modifications for connection to the threshing unit provide an improved flow of material from the row to the threshed grain in the combine. These modifications of structure and the resultant spatial changes to the variety of the conveying systems used from the row to the grain tank of the combine result in a novel and more efficient harvesting machine. The spatial relationship between the powered and the un-powered conveying systems moving in different directions permits improved flow and flow rates reducing plugging and power consumption. Material is lifted through a lesser angle of the inclined plane from the ground to thresher unit. In operation a smooth uninterrupted flow of material from the row unit to the cross auger through the dead space (energy wise) to the retrieving area of the feeder house is provided for.

**NEW CLAIMS**

27. A method to improve the arrangement of and spatial relationship between the functional elements of a row crop harvester attachment or header unit for mounting on and co-acting with the functional elements of a mobile threshing unit, wherein the functional elements include:

- (i) a row crop harvester having a main frame attachment mounted to a mobile harvesting threshing unit;
- (ii) a first conveyor system in said row crop harvester including a power source, said power source connected to a plurality of row units mounted on said main frame for removing grain from the stalks and conveying the material including grain up a first inclined plane to exits from said first conveyor system;
- (iii) a second conveyor system, at right angles to said first conveyor system, including a power source for receiving the harvested material from the exits of said first conveyor system, said second conveyor system cooperating with and above a curved auger trough surface;

(iv) said second conveyor system conveying said material from the exits of said first conveyor system to an area at the center of the plurality of row units for exit from said second conveyor system;

(v) an open area between the exit of the second conveyor system and the entrance of the mobile threshing unit connecting said second conveyor system and mobile threshing unit;

(vi) a third conveyor system, including a power source, in said mobile threshing unit for retrieving material in said open area and delivering the material to the thresher mechanism, wherein the improved method is comprised of:

(a) minimizing the downward curvature of the inlet of said auger trough, said downward angle to not exceed <sup>nine (9)</sup> ~~five (5)~~ degrees,

(b) minimizing the upward curvature of the inlet of said auger trough, said upward angle to not exceed five (5) degrees, and,

(c) minimizing the difference in height between the height of the entrance to the third conveyor system in relation to the height of said second conveyor system, said difference in height reducing the angle of the inclined plane surface from said second conveyor system to said third conveyor system.

28. The method of claim 27, wherein a feeder plate is attached to said second conveyor system for bridging between said second conveyor system and said third conveyor system to reduce the distance and incline plane between said second and third conveyor systems and prevent the build-up of harvested material between said conveyor systems.